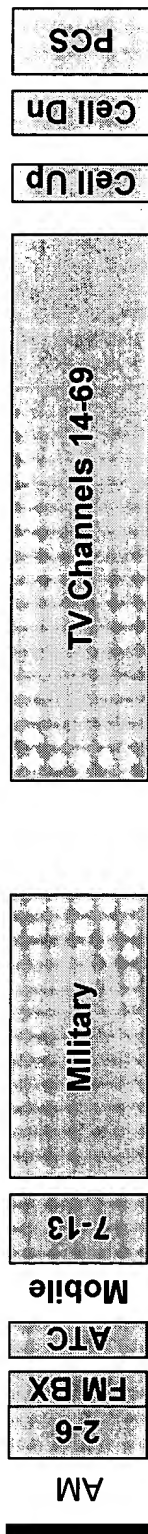
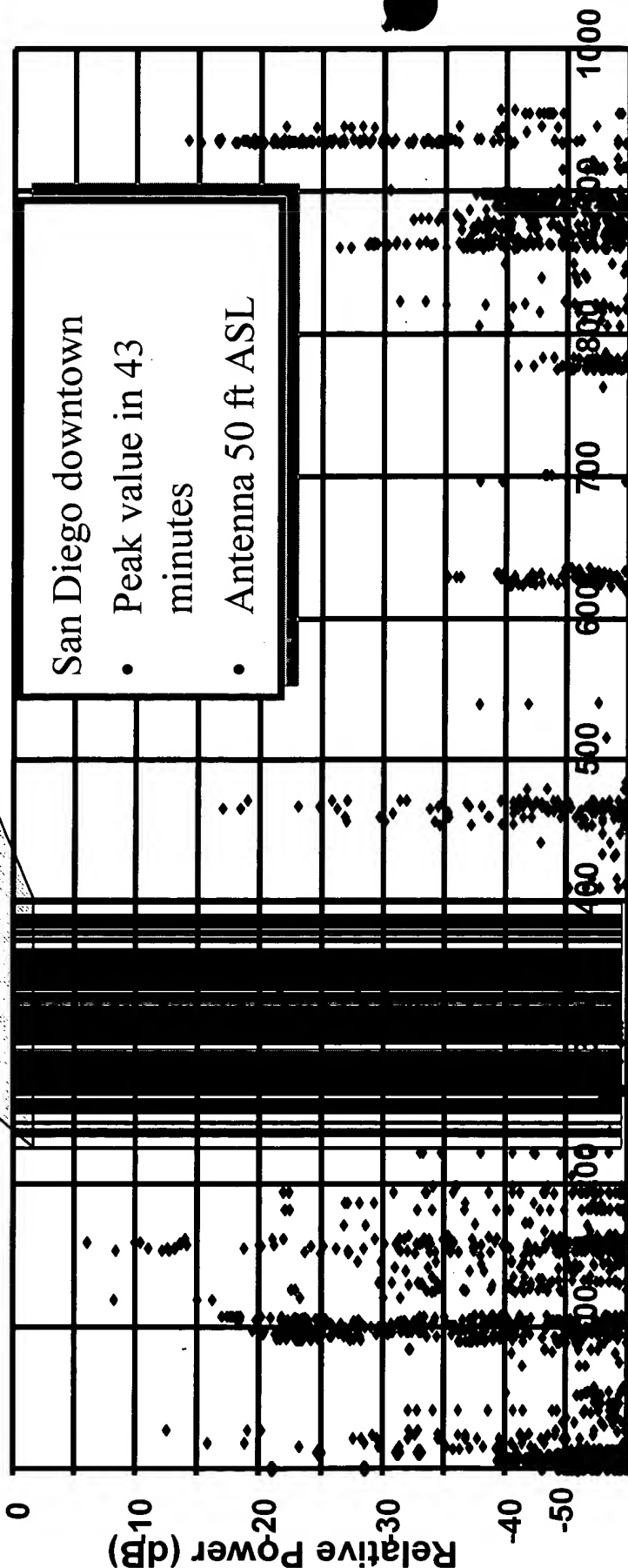


# Allocations (USA)



San Diego Area  
(225 to 400 MHz)

Actual Activity



Radio Frequency (MHz)

Fig. 1

# Spectrum Occupancy Chart

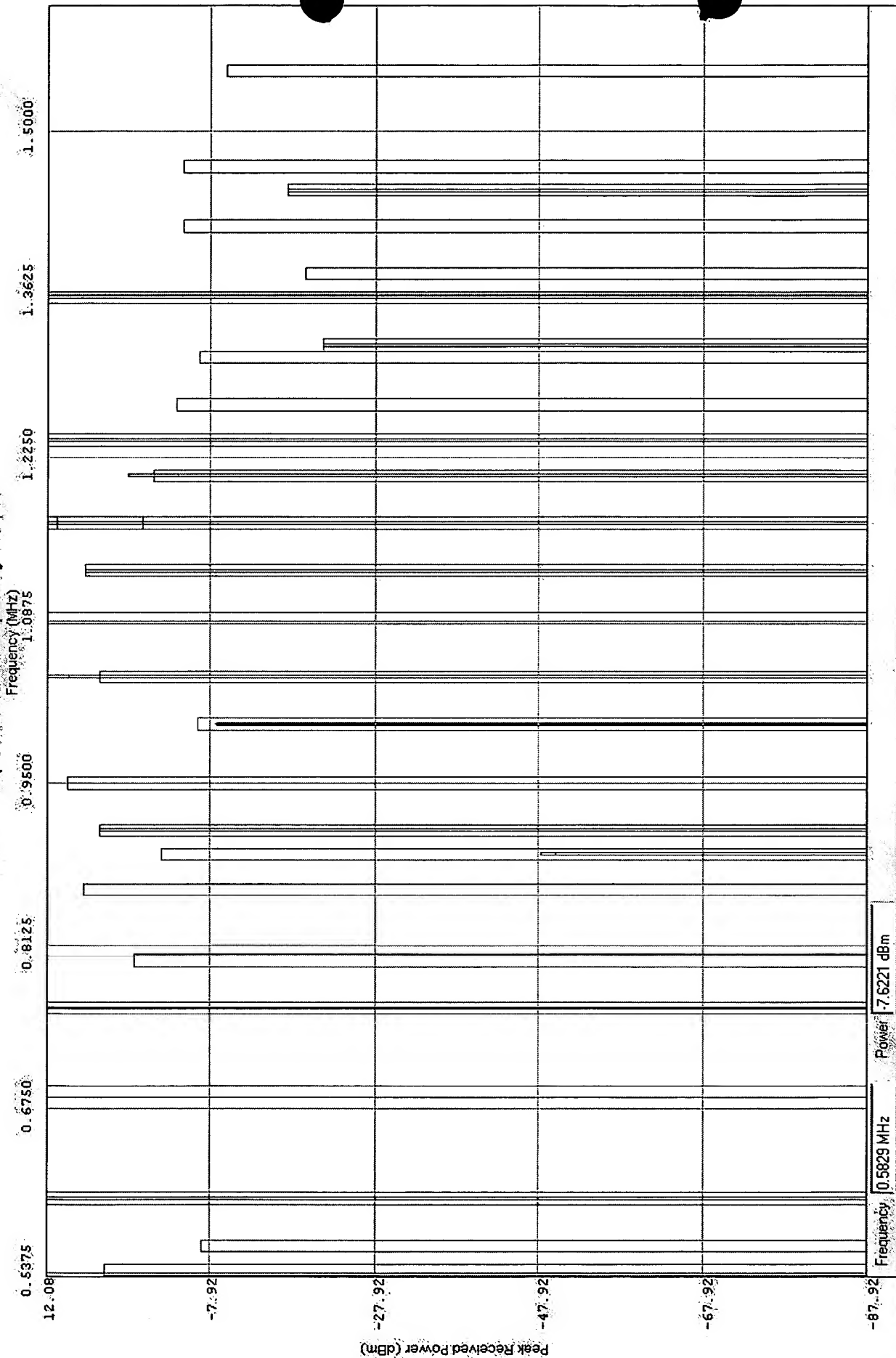
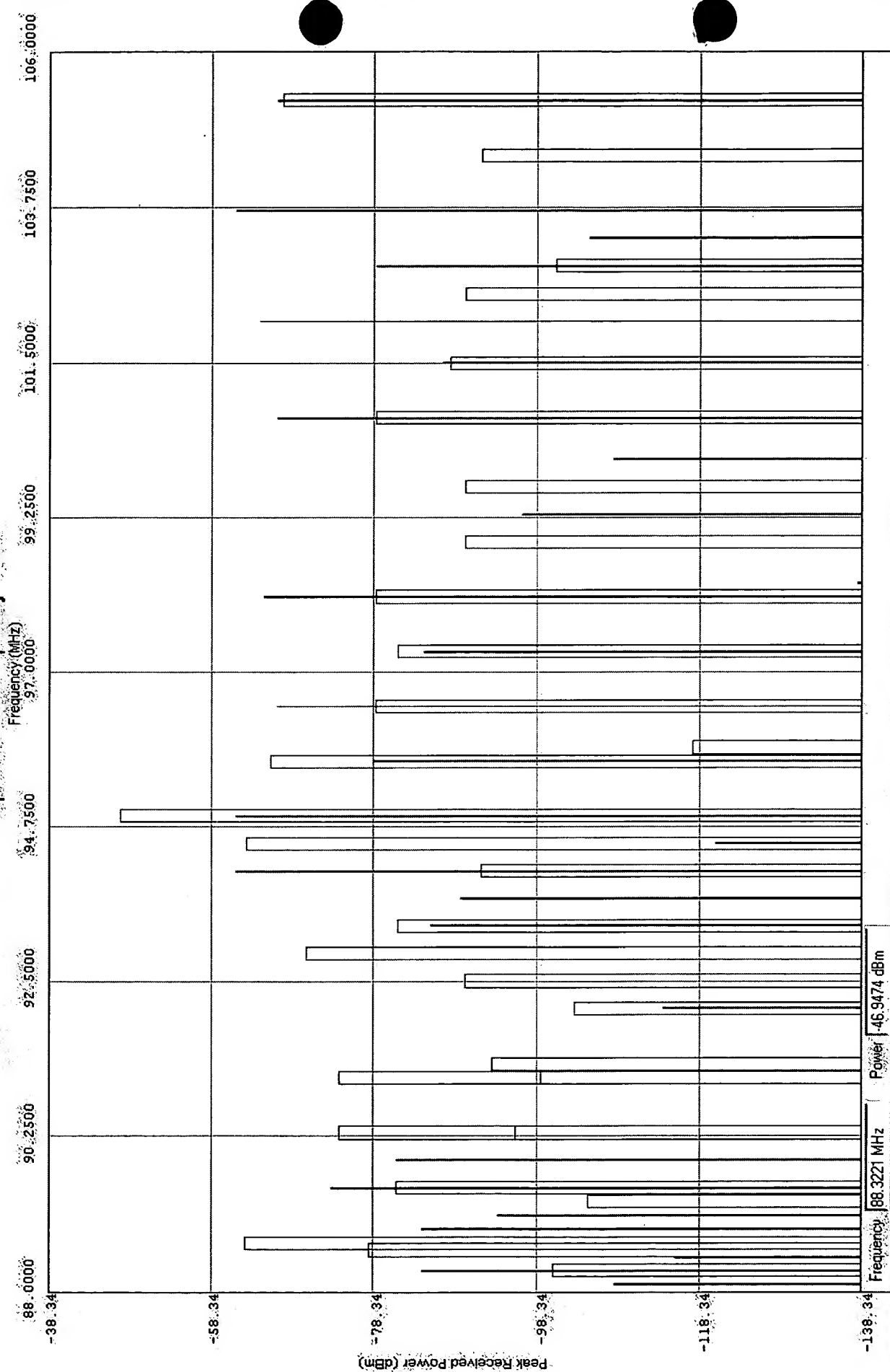


Fig. 2

Parameters			
STC:CA	HGT:1 m	FRQ:K535-K1605	
LOC:AVIS	RAD:0 km	SRD:398 km	
LRT:324322N	LON:1171010W	DTE:20000131	

# Spectrum Occupancy Chart

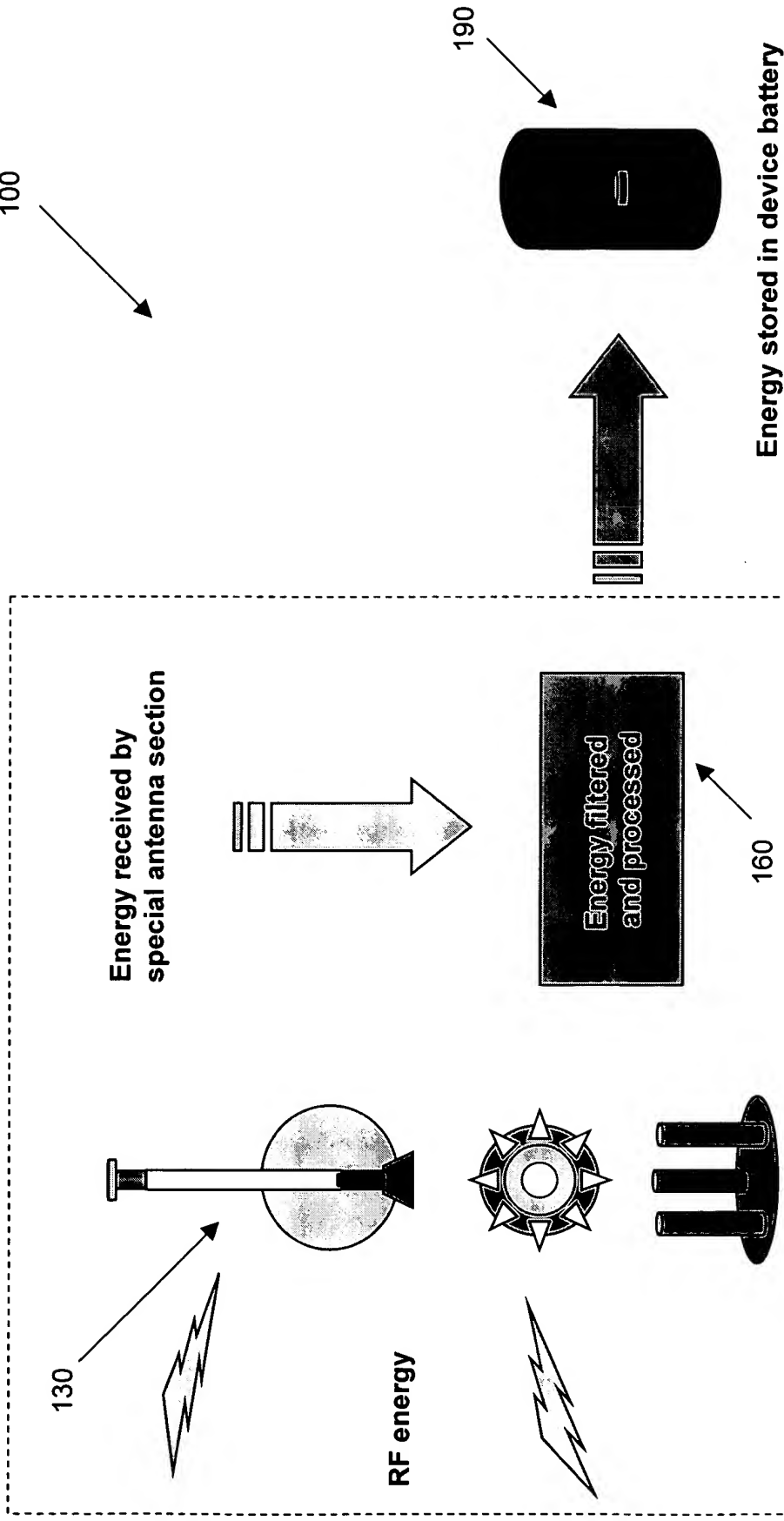


Parameters

STC:CA	HGT:1 m	FRQ:M88-M106
LOC:AVIS	RBD:0 km	SER:398 km
LNT:324322N	LON:1171010W	DTR:20000131

Fig. 3

# ERS System Concept



Energy Harvesting Subsystem (EHS)	Energy Conversion Subsystem (ECS)	Energy Storage Subsystem (ESS)
ENERGY RECLAMATION SYSTEM (ERS)		

Fig. 4

# Antenna Design

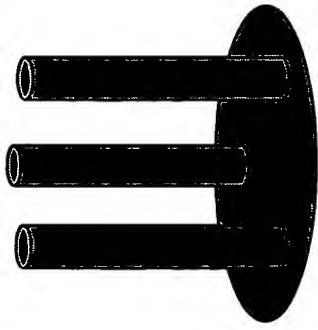


Fig. 5A

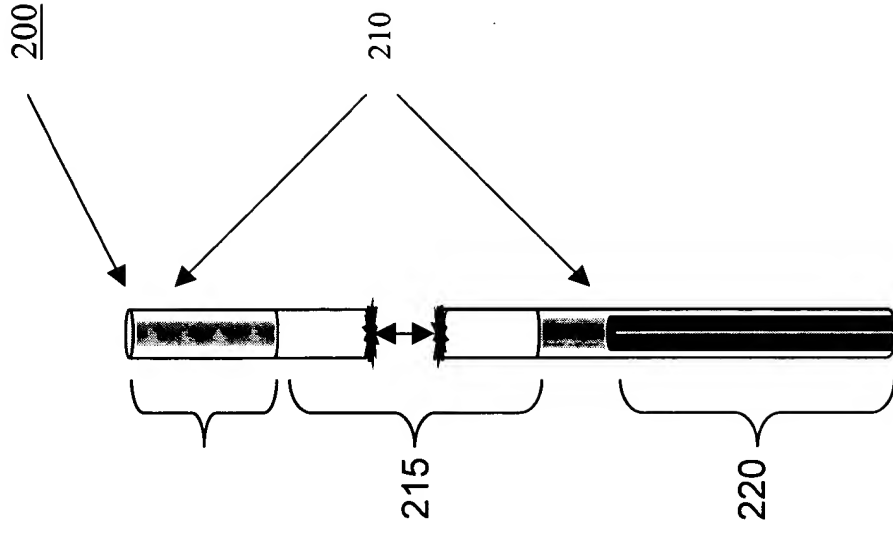


Fig. 5B

# Alternate Antenna Design

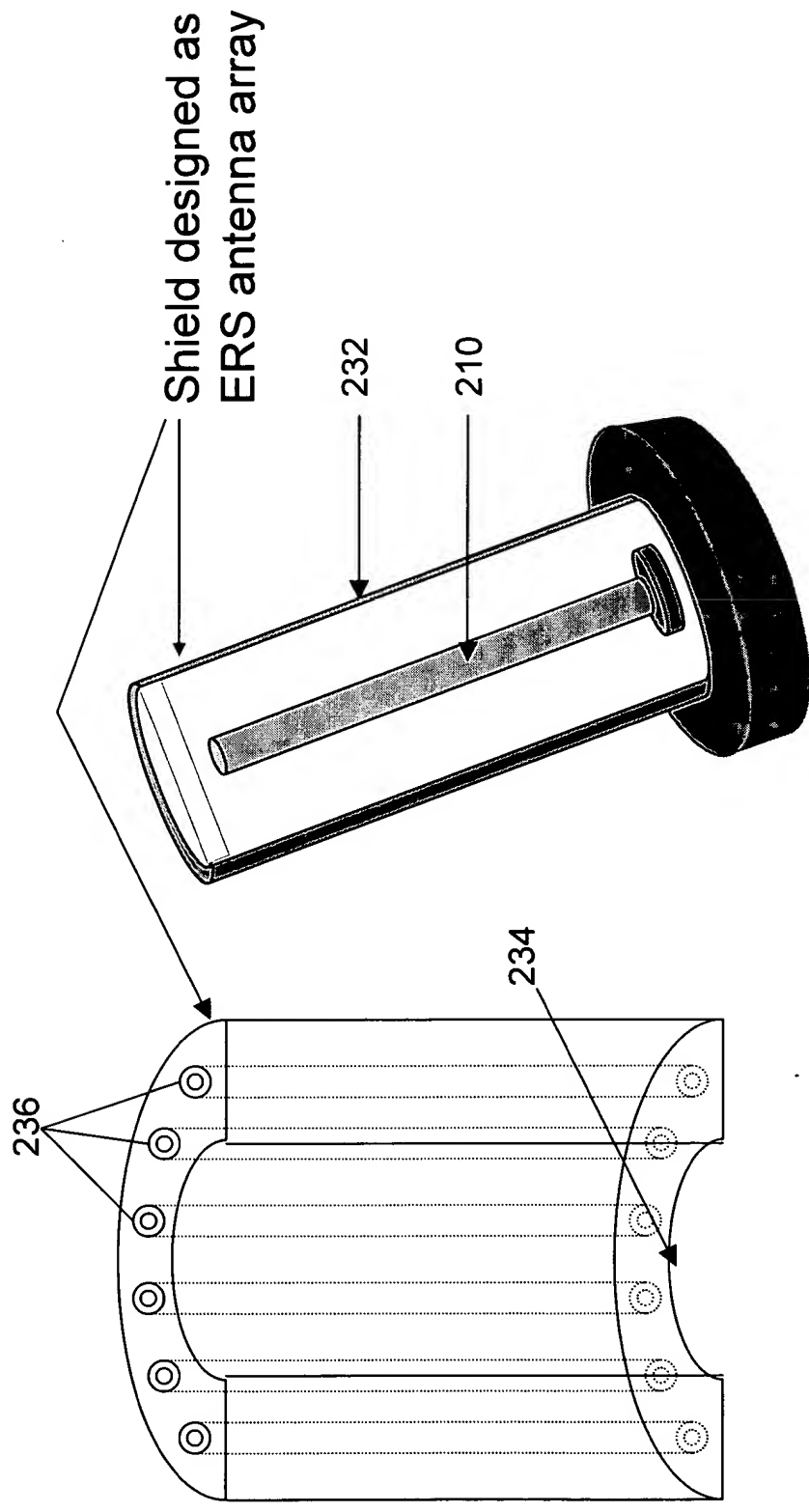


Fig. 6

# Energy Harvesting for Wireless Devices

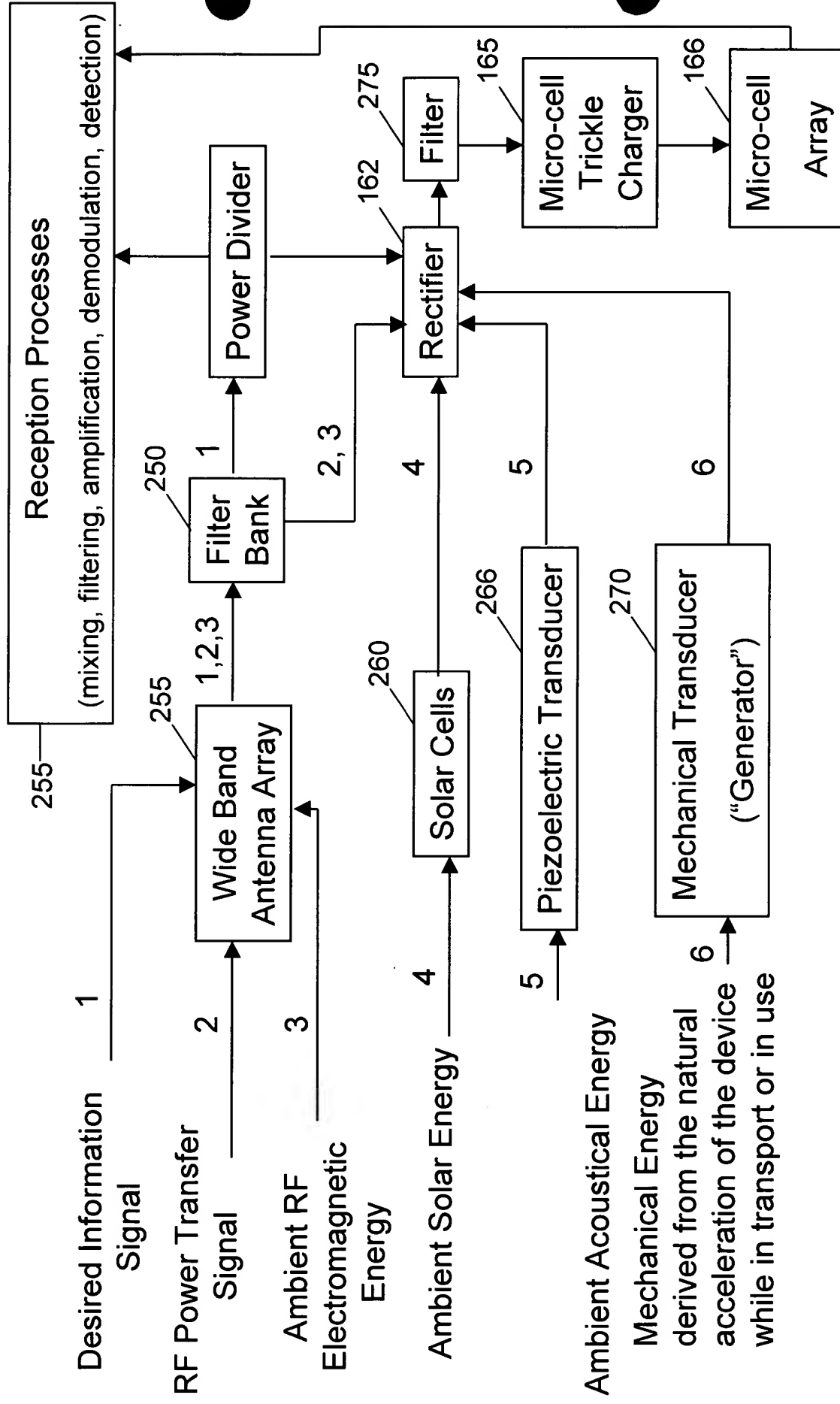


Fig. 7

# RF to DC Power Conversion Design

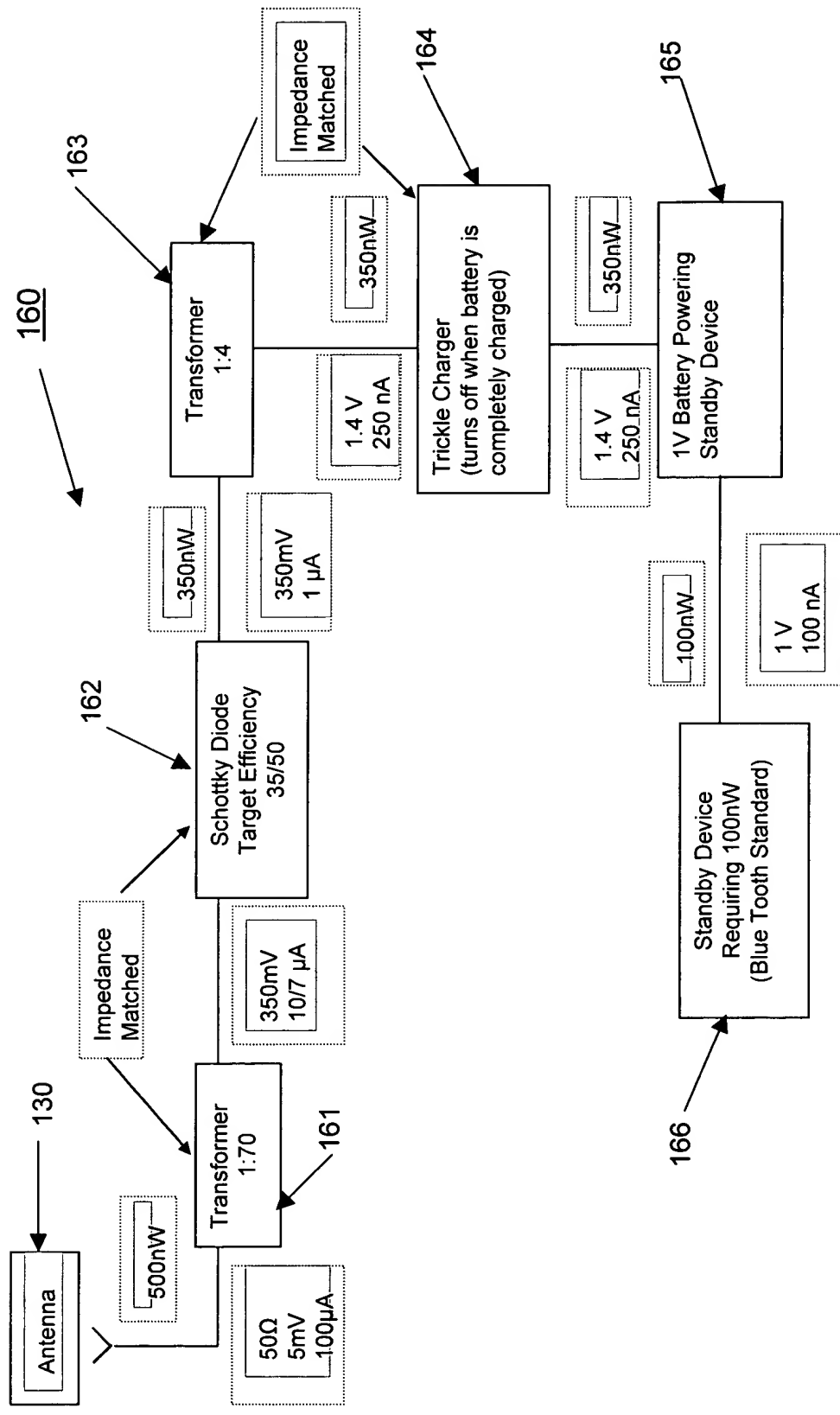


Fig. 8



# RF to DC Power Conversion/Trickle Charge/Power Storage Design Concept

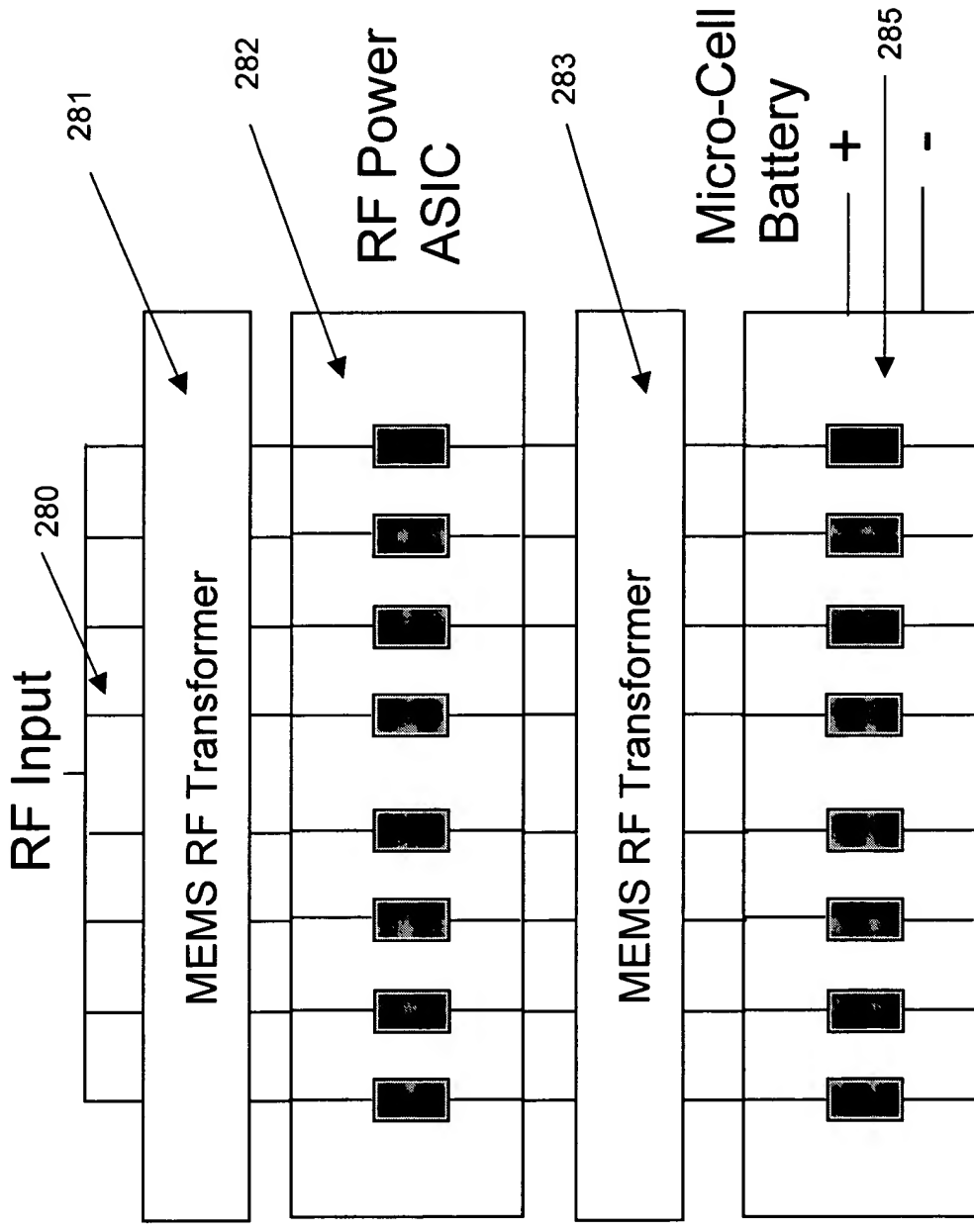


Fig. 9

# Battery Micro-cell Charging (Trickle Charge)

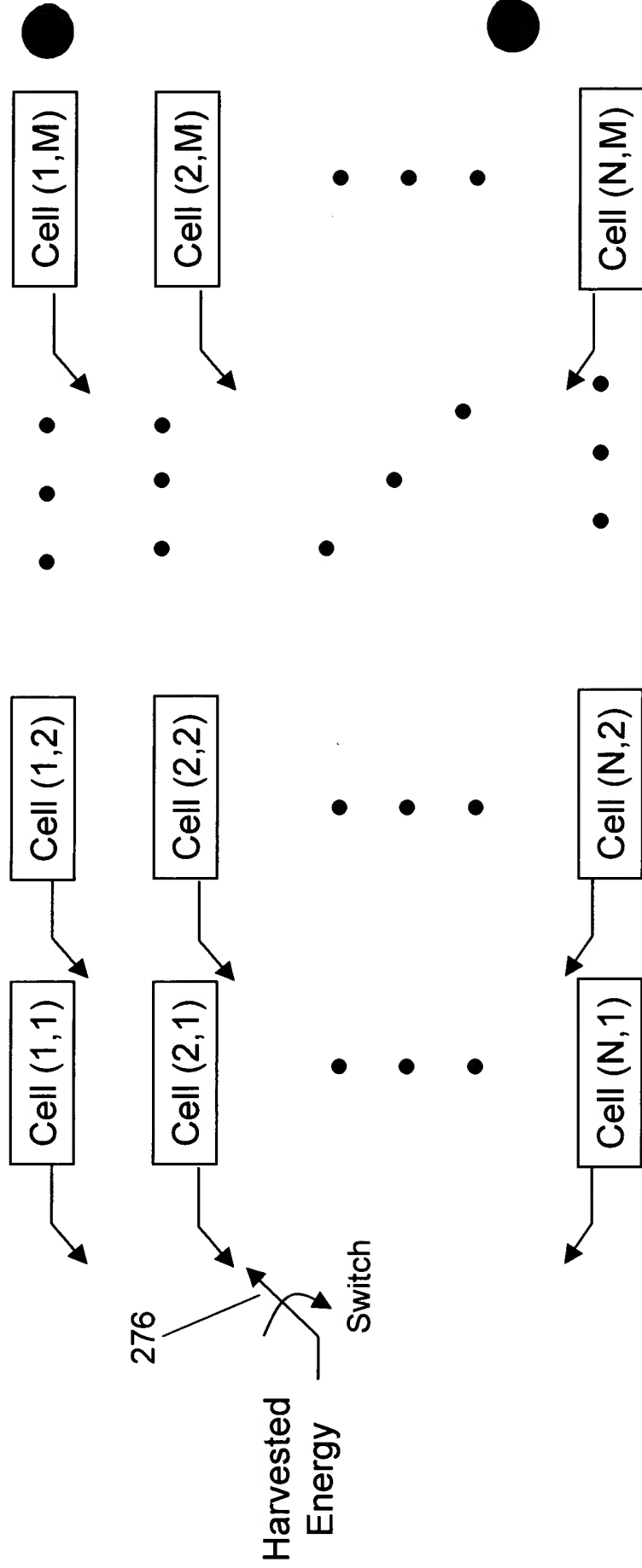
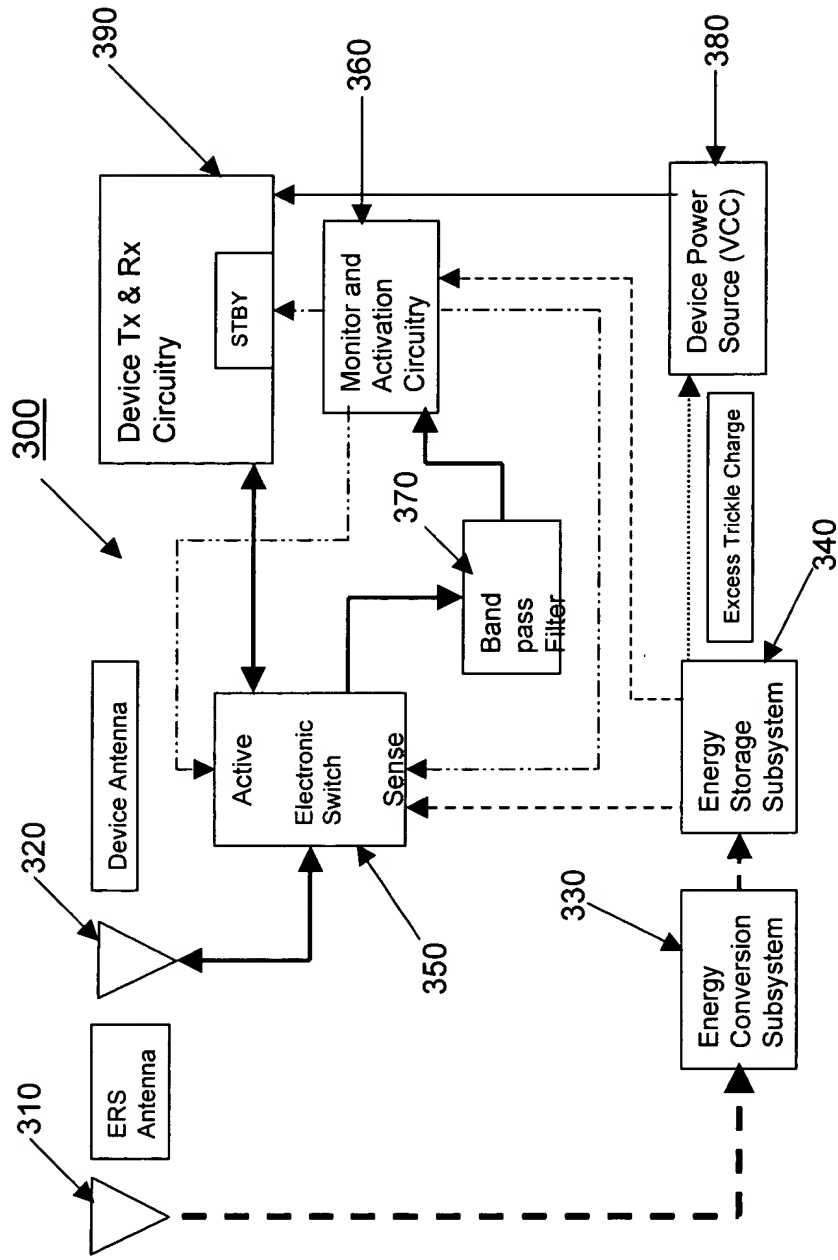
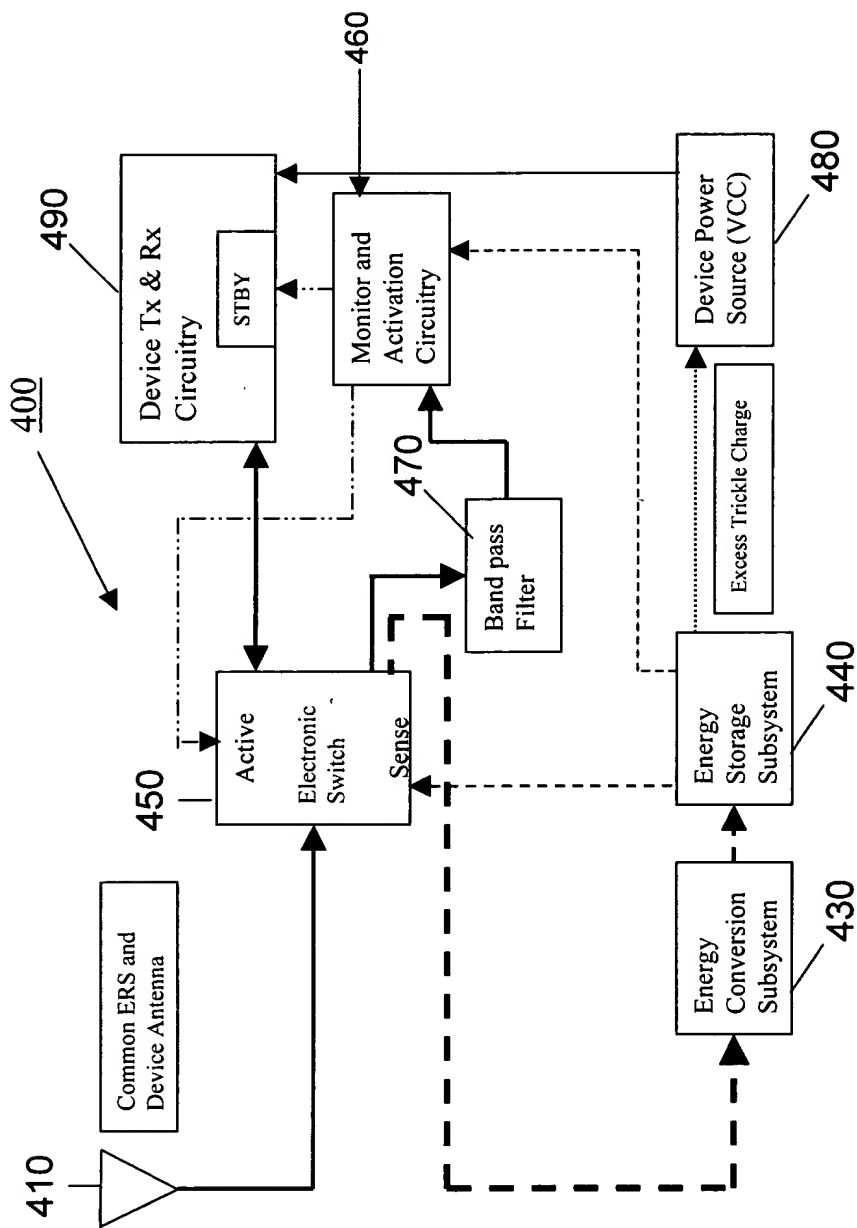


Fig. 10



Two or Multiple Array Antenna Sense and Active Mode

Fig. 11



Common Antenna used for Simultaneous Energy Harvesting, Sense and Active Mode

Fig. 12

